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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte HEYNING CHENG, NAVNEET KAPUR, ABHIMANYU LAD,
and MONICA ROGATI

Appeal 2017-003921
Application 13/780,116
Technology Center 2100

Before ROBERT E. NAPPI, THU A. DANG, and JASON M. REPKO,
Administrative Patent Judges.

REPKO, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1, 2, 4, and 7–24. App. Br. 1.² Claims 3, 5, and 6 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

¹ Appellants identify the real party in interest as LinkedIn Corporation. App. Br. 2.

² Throughout this opinion, we refer to (1) the Final Rejection (“Final Act.”) mailed May 11, 2016, (2) the Appeal Brief (“App. Br.”) filed August 11, 2016, (3) the Examiner’s Answer (“Ans.”) mailed November 4, 2016, and (4) the Reply Brief (“Reply Br.”) filed January 4, 2017.

THE INVENTION

Appellants' invention relates to using social-network information to provide recommendations to social-network members. Spec. ¶ 1.

Recommendations can be career-based, aspirational, or professional.

Id. ¶ 13. One embodiment receives a member's professional goal and compares that member's attributes to those of other members that have achieved the professional goal. *Id.* ¶ 14.

Claim 1 is representative of all claims and is reproduced below:

1. A method, comprising:

receiving input associated with a professional goal from a member of a social network;

identifying other members within the social network that have achieved the professional goal;

comparing social network-related attributes of the member to social network-related attributes of the other members within the social network that have achieved the professional goal;

determining at least one difference between the attributes of the member and the attributes of the identified other members;

calculating a score that indicates a strength of a statistical relationship between obtaining an attribute and achieving the professional goal, the score based at least upon a quantity $(M(G,R) / M(R)) / (M(G,\sim R) / M(\sim R))$, wherein:

quantity $M(G,R)$ denotes a number of members of the social network who report to the social network that they have attribute R and report to the social network that they have achieved the professional goal G;

quantity $M(R)$ denotes a number of members of the social network who report to the social network that they have attribute R;

quantity $M(G,\sim R)$ denotes a number of members of the social network who report to the social network that they lack attribute R and report to the social network that they have achieved the professional goal G; and

quantity $M(\sim R)$ denotes a number of members of the social network who report to the social network that they lack attribute R;
determining a recommendation based on the determined difference and based on the calculated score; and
providing the recommendation to the member of the social network via a graphical user interface element displayed by a user interface of the social network.

THE REJECTION

Claims 1, 2, 4, and 7–24 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. Final Act. 3–6.

ANALYSIS

The Examiner has rejected claims 1, 2, 4, and 7–24 under 35 U.S.C. § 101 because the claims (1) are directed to an “abstract idea” and (2) do not contain an “inventive concept” sufficient to transform the claimed “abstract idea” into a patent-eligible application. Final Act. 3–6.

Appellants argue claims 1, 2, 4, and 7–24 together. *See* App. Br. 17. We select claim 1 as representative. For the reasons discussed below, Appellants have not persuaded us of error.

I

Appellants argue that the Examiner has not followed the examination guidelines, which shows the Examiner has not made a *prima facie* case of unpatentability and has not supported the rejection by substantial evidence. App. Br. 15. Appellants argue that the Examiner describes the claims at a high level of abstraction untethered from the claim language. *Id.* at 19. In Appellants’ view, the Examiner has not identified any concepts that the courts have identified as abstract ideas. *Id.* at 15. We disagree. The

Examiner has provided a rationale that identifies the abstract idea recited in the claim and has explained why it is considered an exception. Final Act. 3–4. In the rejection, the Examiner has identified several concepts and the corresponding Federal Circuit decisions. *Id.* The Examiner has also explained why Appellants’ claims are directed to a concept like those found by the courts to be abstract. *See, e.g., id.* The Examiner’s findings are discussed below.

We further note that, as stated in the guidance, “[f]ailure of Office personnel to follow the USPTO’s guidance materials is not, in itself, a proper basis for either an appeal or a petition.” May 2016 Subject Matter Eligibility Update, 81 Fed. Reg. 27,381, 27,382 (May 6, 2016). Rather, “[r]ejections will continue to be based upon the substantive law, and it is these rejections that are appealable.” *Id.* Considering the relevant substantive law, the Examiner has provided a prima facie case of ineligibility. The Supreme Court’s two-step framework guides the eligibility analysis here. *See Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014). We discuss the Examiner’s application of these two steps in detail in the sections that follow.

II

According to step one, “[w]e must first determine whether the claims at issue are directed to a patent-ineligible concept,” such as an abstract idea. *Id.*

Claim 1 is directed to a method that collects social-network data (“receiving”), compares certain information within that data (“comparing” and “determining” differences between attributes), calculates a score, and provides a recommendation based on the score. Essentially, this method acts

as a “data driven career advisor” that receives a user’s goal and makes recommendations to help the user achieve that goal. Spec. ¶ 16.

Considering the claim’s character as a whole, the method is not an improvement to computer functionality itself. Instead, the method uses a computer in its ordinary capacity to provide career-related recommendations. *See* Final Act. 3–5. This claimed concept is similar to several concepts that the courts have identified to be abstract ideas. *See id.*

For example, the Examiner finds that claim 1 could be carried out by a human being performing manual and mental calculations. *Id.* at 5.

Appellants disagree with the Examiner and note that claim 1 recites, in part, “identifying other members within the social network that have achieved the professional goal.” In Appellants’ view, this requires searching and analyzing a database for suitable members that may be connected to the user. App. Br. 15, 18. Appellants contend that this can involve accessing and processing social-network information, which cannot be performed in the human mind or by a human using pen and paper. *Id.* at 15–16.

Appellants argue that claim 1 is not abstract because the claimed subject matter is an improvement to the functioning of a computer—i.e., the social networking service. *Id.* at 14–15; *see also id.* at 17; Reply Br. 2. According to Appellants, the claimed method provides online career guidance to social-network members, which is a computer-based solution to a problem that exists entirely within the realm of computers. App. Br. 15. We are unpersuaded.

Although Appellants argue that claim 1 involves a database, claim 1 is not directed to a specific asserted improvement to that database’s capabilities. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36

(Fed. Cir. 2016); *see also* *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016) (finding subject-matter eligible when the claimed process was an improvement to the way computers create animation). For example, Appellants use the term “social network” in a broad sense. Spec. ¶ 3. Thus, the claimed social network is not limited to any particular improved computer implementation. Rather, the recited identifying step can be performed by a person manually reviewing the other members in search of matching goals. Furthermore, the claimed method uses the graphical user interface as an ancillary part of the method to communicate a recommendation. In fact, the character of the method would not be changed by providing a hand-written recommendation. Indeed, the Federal Circuit has considered whether a claim covers a method that human beings can perform without a computer in determining that the claim was directed to an abstract idea. *See Mortgage Grader, Inc. v. First Choice Loan Servs.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (explaining “[t]he series of steps covered by the asserted claims . . . could all be performed by humans without a computer”). Here, the claims merely invoke generic processes and machinery as a tool to automate an otherwise manual comparison and determination.

To the extent that the claims require a computer network, we note that “[a]n abstract idea on ‘an Internet computer network’ or on a generic computer is still an abstract idea.” *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1348 (Fed. Cir. 2016). At most, claim 1 uses the computer as a tool to gather information from a social network (“receiving input” and “identifying” members), compare the data (“comparing” attributes and “determining” differences), and calculate a

score. Similarly, the Federal Circuit has held that claims directed to collecting information, analyzing it, and displaying certain results of the collection and analysis were directed to an abstract idea. *Electric Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016).

Regarding the calculated score, Appellants argue the claims do not involve organizing information through mathematical correlation as the Examiner finds. App. Br. 19. But the Examiner's conclusion does not rely on the characterization of the method as a "correlation." Here, the Examiner simply finds that claim 1 is similar to ineligible claims that involved mathematical algorithms, calculations, and the like. *See, e.g.*, Ans. 4. We agree with the Examiner on this point. Specifically, the score calculation uses a formula that is based on a tally of members that have or lack a particular attribute and professional goal. But "[a]dding one abstract idea (math) to another abstract idea . . . does not render the claim non-abstract." *RecogniCorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017).

As a whole, claim 1 does not focus on a specific technical means or method. Apart from the score calculation, the claims generically recite broad and abstract comparisons and determinations. For example, claim 1 does not recite specific details of how to determine the recommendation or specialized equipment to carry out the calculations. Rather, claim 1 abstractly recites determining the recommendation "based on" the calculated score.

In summary, claim 1 is focused on the combination of the above discussed abstract ideas. Appellants' purported advance is a process of gathering and analyzing information of a specified content (e.g., a social network), calculating a score, then displaying a recommendation in a user

interface, instead of a particular inventive technology for performing those functions. On this record, we agree with the Examiner that claim 1 is directed to an abstract idea.

III

Because the claims are “directed to an abstract idea,” we analyze the claims to determine if the limitations, when considered both “individually and as an ordered combination” contain an “inventive concept” sufficient to transform the claimed “abstract idea” into a patent-eligible application. *Alice*, 134 S. Ct. at 2355–58.

Appellants argue that the claims were found to be novel and non-obvious over the cited references, and therefore, recite significantly more than the concept identified by the Examiner. App. Br. 21–22. “But, a claim for a *new* abstract idea is still an abstract idea.” *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). Although Appellants point to § 102 novelty to support their argument here (App. Br. 21–22), the search for a § 101 inventive concept is different. *See id.* Here, the question in step two of the *Alice* framework is not whether an additional feature is novel or non-obvious under §§ 102 or 103 (App. Br. 21–22), but whether the implementation of the abstract idea on a computer involves “more than performance of ‘well-understood, routine, [and] conventional activities previously known to the industry,’” *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A. Ass’n*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014) (quoting *Alice*, 134 S. Ct. at 2359).

Appellants argue that the Examiner relies on personal knowledge to conclude the claims involve well-understood, routine, and conventional functions. App. Br. 20–21. According to Appellants, the Examiner has not

explained why the claimed invention as a whole do not recite significantly more than an abstract idea. *Id.* at 20. On the contrary, the Examiner bases these findings, in part, on the functions that the courts have recognized to be well-understood, routine, and conventional functions. *See* Final Act. 4–6. For the reasons discussed below, we agree with the Examiner.

To the extent that a computer is involved, claim 1’s method uses a computer to perform repetitive calculations. In particular, claim 1 recites, in part, “determining at least one difference between the attributes of the member and the attributes of the identified other members.” Appellants argue that this limitation provides significantly more than the concept that the Examiner has identified as an abstract idea. App. Br. 16. Yet the “identifying,” “comparing,” and “determining” steps merely involve data comparison. Similarly, calculating the recited score involves no more than generic hardware. Indeed, these functions can be carried out on “any machine capable of executing instructions.” *See* Spec. ¶ 94. To be sure, a computer can process large amounts of social-network data faster than a human. But, this use of a computer—performing repetitive calculations—is well-known and routine. *See Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can. (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) (“The computer required by some of Bancorp’s claims is employed only for its most basic function, the performance of repetitive calculations, and as such does not impose meaningful limits on the scope of those claims.”).

Furthermore, the recited user interface merely presents the results of an abstract process. Specifically, claim 1 recites, in part, “providing the recommendation to the member of the social network via a graphical user interface element displayed by a user interface of the social network.”

Appellants argue that this limitation requires changing a user interface's state, which a human cannot perform using a pen and paper. App. Br. 16, 18–19. We, however, disagree that this extra-solution activity is sufficient to render the claim patent eligible. For example, the Federal Circuit has “recognized that merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis.” *Electric Power Grp.*, 830 F.3d at 1354.

Taken as a whole, the claimed steps are recited at a high level of generality, with further limitations only to a mathematical formula and the social-network data acted upon. Overall, apart from reciting that the method recommendation is provided by a graphical-user-interface element, claim 1 does not recite additional computing components. Indeed, the Specification supports the Examiner's finding that only well-known components are needed to carry out the method. *See* Final Act. 6. For example, the Specification states that the network “may be any communications network utilizing *any one of a number of well-known* transfer protocols.” Spec. ¶ 23 (emphasis added). And according to the Specification, the method can be executed by “any machine capable of executing instructions.” *See id.* ¶ 94. Essentially, claim 1 recites an abstract idea “while adding the words ‘apply it with a computer.’” *Alice*, 134 S. Ct. at 2358.

On this record, the limitations individually, and as an ordered combination, do not contain an “inventive concept” sufficient to transform the claimed “abstract idea” into a patent-eligible application. Therefore, we sustain the rejection of representative claim 1 under 35 U.S.C. § 101, and claims 2, 4, and 7–24, which fall with claim 1.

DECISION

We affirm the Examiner's rejection of claims 1, 2, 4, and 7–24.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED